

Sample Name	Type	Meas. Date	Time	Calc. Date	Time	Origin	Method Name	Method Version	Operator Name	Check Type	Check Status	Grade Verif. Name	Grade Verif. %	Correction Type	Type	Corr. Name	Grade Search Name	Grade Search %	Type	Status	Outlier Removal
heat no-210671	Unknown	8/30/2013	9:35:33 AM	8/30/2013	9:36:27 AM	Measured	Fe-30-MO		SARA SAE	None	Not Used	0	None	ASTM-A-181	100	None	Not Used	No			
Sample Name	Grade Norm	Grade ID																			
heat no-210671	SARA	AI SI 1008																			
C	Si	Mn	P	S	Cr	Mo	Ni	Al	Co	Cu	Nb	Ti	V	W	Pb	Sn	As	Zr	Ca	B	Fe
Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	0.076	0.13	0.46	0.014	0.002	0.010	0.003	0.006	0.042	0.005	0.004	0.005	0.0010	0.002	0.066	0.010	0.003	0.005	0.003	0.004	0.0005
2	0.11	0.15	0.46	0.015	0.002	0.008	0.003	0.007	0.051	0.005	0.004	0.005	0.0010	0.002	0.062	0.010	0.003	0.005	0.003	0.008	0.0005
3	0.065	0.13	0.46	0.015	0.002	0.009	0.003	0.011	0.032	0.005	0.004	0.005	0.0010	0.002	0.070	0.010	0.002	0.005	0.003	0.004	0.0005
Rep	0.084	0.14	0.46	0.015	0.002	0.009	0.003	0.008	0.042	0.005	0.004	0.005	0.0010	0.002	0.066	0.010	0.003	0.005	0.003	0.005	0.0005
Min Cal	0.006	0.005	0.004	0.003	0.002	0.005	0.003	0.005	0.003	0.005	0.002	0.005	0.0010	0.002	0.040	0.010	0.002	0.005	0.003	0.0005	0.0005
Mean	0.084	0.14	0.46	0.015	-0.016	0.009	-0.013	0.008	0.042	0.0006	0.004	-0.008	-0.003	-0.0001	0.066	0.001	0.003	-0.007	0.001	0.005	-0.0002
Max Cal	3.00	5.04	18.12	0.18	0.30	36.00	10.20	55.2	6.24	21.60	7.44	3.60	3.60	12.00	7.32	0.13	0.27	0.13	0.19	0.016	0.025



RASHTRIYA ISPAT NIGAM LIMITED

SAE1008

VISAKHAPATNAM STEEL PLANT

Quality Assurance & Technology Development Department, Visakhapatnam

TEST CERTIFICATE

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Product/Size :	90X90 mm Billets	Customer :
T.C.No.: QMS/R/QAD/RM/20/M001524 - 1	Dt. 31/07/2013	SARA SAE PRIVATE LIMITED UNIT-II
Order No. EMSC293010050		DEHRADUN-UTTARAKHAND
Invoice No.: 2013001953		
Wagon/Truck No.: HR55B5400		Invoice Wt. (T): 5.670

HEAT NO	210671
No Of Pcs/Bundles	1
C %	0.05 ✓
Mn %	0.45 ✓
P %	0.013 ✓
S %	0.015 ✓
Si %	0.250 ✓
Al %	0.027 ✓
C.E. (IF APPLICABLE)	0.13
YS (N/mm ²)	NA
UTS (N/mm ²)	NA
%EL	NA
%RA	NA
OTHERS	NA
BEND TEST	
GRADE	SAE1008

on
100B
Refpal

AVERAGE WEIGHT OF EACH BUNDLE IS 5.670 TONS APPROXIMATELY
The material supplied conform to the standard rolling and weight tolerances.

for HOD (QA & TD)
Visakhapatnam Steel Plant
Incharge
RASHTRIYA ISPAT NIGAM
A Govt. of India Enterprise
Visakhapatnam Steel Plant
RAZIABAD (G.P.)